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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,117	11/30/2001	Chris Antico	24845	8135

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EXAMINER	
BARBEE, MANUEL L	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/980,117	ANTICO ET AL.	
	Examiner	Art Unit	
	Manuel L. Barbee	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *62-127* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *62-105 and 107-125* is/are rejected.

7)☒ Claim(s) *106,126 and 127* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference number "101" in Figures 5-8. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

On page 8, line 31, delete "143", and insert --134--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 62-64. 66-70, 72, 73, 86-92, 104, 105, 112-119 and 121-125 are rejected under 35 U.S.C. 102(b) as being anticipated by Welles, II et al. (US Patent No. 5,686,888).

With regard to a receiving station connected to a communications network and a monitoring means to receive a signal, as shown in claims 62 and 117, Welles, II et al.

teach a central station for receiving a signal indicating the value of a parameter in a cargo container (Abstract; col. 3, lines 35-58;col. 4, line 66 - col. 5, line 13; Fig. 1 central station 18; Fig. 2 mobile tracking unit 10, sensors 68A-D). With regard to parameter measurement means, as shown in claims 62, 90, 104 and 117, Welles, II et al. teach sensors to measure parameters of the cargo (Figure 2, sensors 68A-68D). With regard to a signal generating means that holds data and sends a signal indicating correct operating if the parameter values are in tolerance and a signal indicating the system is not operating correctly if parameter values are out of tolerance, as shown in claims 62, 90, 104 and 117, Welles, II et al. teach a sending nominal temperature values and generating a report when temperature values are out of tolerance (col. 5, lines 14-32; col. 6, lines 16-42; Fig. 3). With regard to a local communication means to transmit the signal through a communications network to the receiving station, as shown in claims 62, 90, 104 and 117, Welles, II et al. teach a local transceiver for transmitting the signals through a satellite network (col. 5, lines 14-32; Figs. 1 and 3).

With regard to a local transceiver which collects signals from the mobile monitoring subsystems and transmits the signals to the receiving stations, as shown in claims 63 and 118, and a plurality of containers each with a mobile monitoring sub-system and a master mobile monitoring sub-system that receives signals from other mobile monitoring sub-systems and transmits them to the local transceiver, as shown in claims 64, 70, and 119, Welles, II, et al. teach a master mobile tracking unit with a transceiver and a plurality of slave units which send data to the master unit for transmitting the data to the central station (col. 5, lines 14-32; Fig. 3). With regard to a

communication network that includes a satellite and a relay transceiver that transmits on interrogation or initiates communication, as shown in claims 66, 67, 121 and 122, Welles, II et al. teach periodically sending data and sending data as requested by the satellite (col. 5, lines 14-32; col. 6, lines 24-42; Fig. 3). With regard to a low power transmitter in the monitoring sub system, as shown in claims 68, 91, 123 and 124 and where the parameter measurement means is in a fixed location, as shown in claim 124, Welles, II et al. teach low power transmitters in the mobile tracking units that are fixed to the cargo containers (col. 6, line 43 - col. 7, line 18). With regard to a shipping container used fro sea transportation, as shown in claims 69 and 125, Welles et al. teach shipping containers (col. 4, lines 29 and 30).

With regard to wireless communication between the monitoring sub-systems, as shown in claim 72, Welles, II et al. teach wireless communication (Fig. 3). With regard to measuring temperature and air pressure, as shown in claims 73, 92 and 105, Welles, II et al. teach measuring temperature and pressure (Fig. 2, sensors 68A-68D). With regard to a transmitter that transmits to a local transceiver that transmits including a channel of a satellite navigation system, Welles et al. teach transmitting from the transceiver of the mobile tracking units to a master mobile tracking unit which transmits to a satellite and uses a Global Positioning System (GPS) (col. 5, lines 14-32; col. 3, lines 35-58; Figs 1 and 3).

With regard to receiving a trigger signal to trigger the downloading and transmitting of data in the control unit, as shown in claim 112, Welles, II, et al. teach allowing the central station to initiate polling of the sensors by the tracking unit (col. 5,

lines 50-56). With regard to the control unit causing the data logging device to record the parameter values at regular intervals in the range of 10 minutes to 2 hours, as shown in claims 113 and 114, Welles, II, et al. teach recording data every 15 minutes (col. 6, line 43 - col. 7, line 4). With regard to a communication control means that initiates that downloading of data from the logging device, as shown in claims 115 and 116, Welles, II et al. teach a transmitter that transmits data from the sensors to the transceiver in each mobile tracking unit and allowing the mobile tracking units to poll the sensors periodically (col. 5, lines 50-56).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 65, 75, 77-85, 93, 95-103, 107, 109-111 and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al. in view of Hassett (US Patent No. 5,347,274).

Welles, II et al. teach all the limitations of claims 62 and 63 upon which claim 65 depends, claims 62, 63 and 73 upon which claim 75 depends, claim 90 upon which claim 93 depends, claim 104 upon which claim 107 depends and claim 117 upon which claim 120 depends. Further, with regard to receiving a trigger signal to trigger the downloading and transmitting of data in the control unit, as shown in claims 80 and 98, Welles, II, et al. teach allowing the central station to initiate polling of the sensors by the

tracking unit (col. 5, lines 50-56). With regard to the control unit causing the data logging device to record the parameter values at regular intervals in the range of 10 minutes to 2 hours, as shown in claims 81, 82, 99 and 100, Welles, II, et al. teach recording data every 15 minutes (col. 6, line 43 - col. 7, line 4). With regard to a communication control means that initiates that downloading of data from the logging device or is triggered to download, as shown in claims 83-85 and 101-103, Welles, II et al. teach a transmitter that transmits data from the sensors to the transceiver in each mobile tracking unit and allowing the mobile tracking units to poll the sensors periodically or to be triggered by the satellite (col. 5, lines 50-56).

Welles, II et al. do not teach a land based communications network, as shown in claims 65 and 120. Welles, II et al. do not teach storage means to record the parameter, as shown in claims 75, 93 and 107. Hassett teaches a land-based base stations that transmit data to a central data processor (col. 3, line 63 - col. 4, line 10; Fig. 1). Hassett teaches a memory connected to the processor controlling the sensors in a waste transport management system (col. 4, lines 29-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tracking units, as taught by Welles, II et al., to include land based communication, as taught by Hassett, because then the communication network would have been more easily maintained. It would further have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tracking units, as taught by Welles, II et al., to include a memory, as taught by Hassett, because then data could have been stored until transmitting data to the central station was available.

Welles, II et al. do not teach that the storage means is digital, magnetic or a floppy disk drive, as shown in claims 77-79, 97-97 and 109-111. The Examiner takes official notice that digital, magnetic and floppy disk drive storage means are well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tracking unit, as taught by Welles, II et al. to include storing data on a digital or magnetic floppy disk, because then data would have been easily transferred to another computer for analysis or display.

7. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al. in view of Darby, Jr. et al. (US Patent No. 6,400,281).

Welles, II et al. teach all the limitations of claims 62 and 63 upon which claim 71 depends. Welles, II et al. do not teach connecting the monitoring sub-systems using wire connections, as shown in claim 71. Darby, Jr. et al. teach connecting Rail Car Units using many methods including optical systems (col. 5, lines 32-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tracking units, as taught by Welles, II et al. to include connecting monitoring units in different containers or cars using wire, as taught by Darby, Jr. et al., because then there would have been less chance for interference in communication between the tracking units.

8. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al. in view of Storm et al. (DE 19534948 A1).

Welles, II et al. teach all the limitations of claims 62, 63 and 73 upon which claim 74 depends. Welles, II et al. do not teach predict a projected state of perishable cargo

at the end of a journey, as shown in claim 74. Storm et al. teach modifying conditions in a transport container containing perishables in order to change ripening conditions (page 1, par. 3). Modifying conditions to control ripening suggests a prediction or expectation for the state of the product upon delivery. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tracking unit, as taught by Welles, II et al., to include modifying conditions, as taught by Storm et al., because then the perishable product would have arrived in optimal condition (page 1, par. 3).

9. Claims 76, 94 and 108 rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al. in view of Hassett as applied to claims 75, 93 and 107 above, and further in view of Storm et al.

Welles, II et al. and Hassett teach all the limitations of claim 75 upon which claim 94 depends, claim 93 upon which claim 94 depends and claim 107 upon which claim 108 depends. Welles, II et al. and Hassett do not teach measuring humidity as shown in claims 76, 94 and 108. Storm et al. teach measuring humidity in a transport container (page 1, par. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tracking unit combination, as taught by Welles, II et al. and Hassett, to include measuring temperature and humidity, as taught by Storm et al., because then the condition of perishable cargo would have been determined.

10. Claims 88 and 89 rejected under 35 U.S.C. 103(a) as being unpatentable over Welles, II et al.

Welles, II et al. teach all the limitations of claims 62 and 86 upon which claim 88 and 89 depend. Welles, II et al. do not teach a communications channel that includes satellite telephone or a switched telephone system. The Examiner takes official notice that it is well known to communicate using a satellite telephone or a switched telephone network. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify tracking units, as taught by Welles, II et al., to include satellite telephone or the switched telephone network, because then it would not have been necessary to create a new communications network.

Allowable Subject Matter

11. Claims 106, 126 and 127 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kirkpatrick (US Patent No. 4,970,496) teaches a vehicular monitoring system that includes a refrigerator trailer.

Denny (US Patent No. 5,867,801) teaches monitoring railway cars and transmitting data every 15 minutes.

Keehan (US Patent No. 6,167,827) teach monitoring containers on a tanker.

Letang (US Patent No. 6,587,767) teaches monitoring heavy-duty trucks.

(DE 19832341 A1) teach monitoring shock in transport containers.

Fushimi (JP 08164895 A) teach monitoring temperature and humidity in the hold of a transport ship.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 703-308-0979. The examiner can normally be reached on Monday-Friday from 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 703-308-1677. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0976.

mlb

MARC S. HOFF
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